CLAIMS

What is claimed is:

1. An electrode assembly for use with a microstimulator, comprising:

a conductive electrode with a core defining a hole through the center of the core of the electrode;

a conductive wire electrically connected to the electrode through the core of the electrode; and

a capacitor electrically connected to the wire.

2. The electrode assembly of Claim 1, wherein the electrode is attached to a braze assembly, the braze assembly comprising:

a metal member including an exterior flange of the metal member, the exterior flange including an inner surface;

a braze material including titanium and nickel; and

a ceramic member including a formed end, wherein the formed end of the ceramic member adjoins the inner surface of the exterior flange and is brazed to metal member with the braze material.

3. The electrode assembly of Claim 1, wherein at least one of the wire and the electrode is titanium.

4. The electrode assembly of Claim 1, wherein the wire contains slack in between the electrode and the capacitor.

5. The electrode assembly of Claim 1, wherein the wire is electrically connected to the electrode by laser spot welding.

6. The electrode assembly of Claim 1, wherein the wire is electrically connected to the capacitor with conductive epoxy.

7. The electrode assembly of Claim 1, wherein the wire is electrically connected to the capacitor using solder.

8. The electrode assembly of Claim 1, wherein the wire forms a u-loop at the site of electrical connection between the wire and the capacitor.

9. An assembly carrier for housing the components of a microstimulator during assembly, comprising:

a groove in the assembly carrier, wherein the groove is capable of securing a microstimulator housing and a wire in the carrier;

a wedge adjacent the groove, wherein the wedge is capable of pivoting and securing the wire within the groove; and

an elevator in communication with the assembly carrier, wherein the elevator is capable of facilitating attachment of a capacitor to the wire;

wherein a wire may exit the groove adjacent the capacitor.

10. The carrier of Claim 9, wherein the elevator is a screw that is capable of elevating the capacitor in a substantially vertical direction until the capacitor is adjacent to the wire.

11. A method of electrically attaching a wire to a capacitor and an electrode of a microstimulator, comprising:

providing an electrode;

forming a hole through the electrode;

providing a wire;

preparing the wire to prevent the wire from slipping through the hole in the electrode;

threading the wire through the hole in the electrode;

providing a capacitor;

creating an electrical connection between the wire and the capacitor; and

electrically connecting the wire to the electrode.

12. The method of Claim 11, further comprising:

bending an end of the wire before creating an electrical connection between the wire and the capacitor;

creating an electrical connection between the bent end of the wire and the capacitor;

removing excess wire from the bent end of the wire after creating an electrical connection between the wire and the capacitor;

removing excess wire from the wire where the wire electrically connects to the electrode after electrically connecting the wire to the electrode.

13. The method of Claim 12, wherein electrically connecting the wire to the electrode includes laser spot welding and wherein removing excess wire includes laser spot welding.

14. The method of Claim 12, further comprising:

securing the electrode, wire, and capacitor in an assembly carrier before creating an electrical connection between the wire and the capacitor;

tightening an elevator screw on the assembly carrier to raise the capacitor until the capacitor touches the wire; and

vertically housing the electrode, wire, and capacitor in an assembly carrier before electrically connecting the wire where it exits the electrode.

15. The method of Claim 11, further comprising providing slack in the wire between the electrode and the capacitor.

16. The method of Claim 11, wherein providing an electrode includes providing an electrode that is attached to a braze assembly.

17. The method of Claim 11, wherein forming a hole through the electrode includes drilling a small diameter hole with a small diameter drill bit.

18. The method of Claim 11, wherein preparing the wire includes at least one of: bending the wire, clipping another structure to the wire, and attaching at least one other structure to the wire.

19. The method of Claim 11, wherein bending an end of the wire further includes bending the wire to a shape that permits maximum electrical contact with the capacitor.

20. The method of Claim 11, wherein the electrode is attached to a braze assembly of a microstimulator.